

PATENT COOPERATION TREATY

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From the
INTERNATIONAL SEARCHING AUTHORITY

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) **11 JUL 2006**

Applicant's or agent's file reference

GRA26 026 PC

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US05/16749

International filing date (day/month/year)

11 May 2005 (11.05.2005)

Priority date (day/month/year)

12 May 2004 (12.05.2004)

International Patent Classification (IPC) or both national classification and IPC

IPC: **H04B 7/15(2006.01)**

USPC: 455/11.1

Applicant

ANDREW CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US

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Date of completion of this opinion

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Form PCT/ISA/237 (cover sheet) (April 2005)

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Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☐ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>NONE</u>	YES
	Claims <u>1-20</u>	NO
Inventive step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-20</u>	NO
Industrial applicability (IA)	Claims <u>1-20</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Please See Continuation Sheet

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

V. 2. Citations and Explanations:

Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by Bandeira (Bandeira et al. U.S. Publication 2002/0072,329).

Regarding claim 1, Bandeira discloses a wireless communication system comprising: a plurality of base stations (*see for example, Figures -1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0038], lines 1-16, the communication system and multiple base stations*); at least one mobile appliance (*see for example, Figure 1, paragraph [0034], lines 1-5, [0035], lines 1-22, the mobile stations*); at least one repeater (*see for example, Figure 1, paragraphs [0020], [0021], [0038] through [0042], [0054]-[0055], [0061], and [0083], the repeaters*); and a control and management device (*see for example, Figure 1, paragraphs [0082], lines 1-9, [0084], lines 1-7, the processor and controlling device (managing device)*), wherein the at least one repeater further comprises a scanning receiver (*see for example, paragraphs [0020], [0038], [0040], [0042], [0073], [0078], and [0088], the repeater receiver and scanning*), and an interface wherein the scanning receiver is adapted to measure attributes of reverse link channels and wherein the interface operably connects the at least one repeater and the control and management device (*see for example, Figures 1, 6-10, paragraphs [0020], [0038], [0040], [0042], [0073], [0078], [0082], lines 1-9, [0084], lines 1-7, [0088]*).

Regarding claim 6, Bandeira discloses a method of determining if a signal, from a source transmitter, received at a receiver has passed through the a network device (*see for example, Figures -1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0038], lines 1-16, the communication system with network and receiving signal from the transmitter*) comprising: scanning signals at the network device (*see for example, Figures -1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0020], [0038], lines 1-16, [0040], [0042], [0073], [0078], and [0088], the network and scanned signals*); measuring an attribute of the scanned signals (*see for example, paragraphs [0020], [0038], [0040], [0042], [0073], [0078], and [0088], scanning signals*); and communicating to a system manager the attributes of the scanned signals measured at the network device (*see for example, Figures -1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0020], [0038], lines 1-16, [0040], [0042], [0073], [0064], [0068], [0078], and [0088]*); and, determining which signals are served by the network device based at least in part of the measured attributes (*see for example, Figures -1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0020], [0038], lines 1-16, [0040], [0042], [0073], [0064], [0068], [0078], and [0088]*).

Regarding claim 15, Bandeira discloses a method of determining if a mobile appliances signal received at a base station has been operated on by one or more repeaters (*see for example, Figures -1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0020] - [0021], [0038] through [0042], [0054], [0061], [0083], the communication system with repeater and the base station received signal*) comprising: scanning reverse channel signals at the one or more repeaters (*see for example, paragraphs*

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[0020], [0038], [0040], [0042], [0073], [0078], and [0088], scanning signals); measuring one or more attributes of the scanned reverse channel signals (see for example, Figures 1, 6-10, paragraphs [0020], [0038], [0040], [0042], [0073], [0078], [0082], lines 1-9, [0084], lines 1-7, [0088]); transmitting to a system manager over a link the attributes of the scanned reverse channel signals and channel information of the reverse channel signals (see for example, Figures 1, 6-10, paragraphs [0020], [0038], [0040], [0042], [0073], [0078], [0082], lines 1-9, [0084], lines 1-7, [0088]); determining the proximity of the mobile appliance to the one or more repeaters based at least in part by the measured attributes (see for example, Figures 1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0020], [0038], lines 1-16, [0040], [0042], [0073], [0064], [0068], [0078], and [0088]); and determining which reverse channel signals are served by the one or more repeaters based at least in part by the proximity of the mobile appliance to the one or more repeaters (see for example, Figures 1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], [0020], [0021], [0038] through [0042], [0054]-[0055], [0061], [0064], [0068], [0080], [0083], [0085], [0088], [0090]).

Regarding claims 2, 8, and 16, Bandeira teaches all the limitations of claims 1, 7, 15, and further, Bandeira teaches wherein the attributes are selected from the group comprising: signal characteristics (see for example, Figures 1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0064], [0068], [0078]), signal strength and band of received power (see for example, Figures 1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0064], [0068], [0078]).

Regarding claim 3, Bandeira teaches all the limitations of claim 1, and further, Bandeira teaches wherein the scanning receiver is connected to an antenna of the at least one repeater (see for example, paragraphs [0020], [0038], [0040], [0042], [0073], [0078], and [0088], scanning signals).

Regarding claim 4, Bandeira teaches all the limitations of claim 1, and further, Bandeira teaches wherein the at least one repeater and control and management device are connected via a wireless channel of one of the plurality of base stations (see for example, paragraphs [0005], [0008], [0017], [0020], [0021], [0045], [0046], [0076], [0077], [0082], [0084]).

Regarding claim 5, Bandeira teaches all the limitations of claim 1, and further, Bandeira teaches wherein the control and management device is connected to mobile switching center (see for example, Figures 1-10, paragraphs [0005], [0008], [0017], [0020], [0021], [0045], [0046], [0076], [0077], [0082], [0084], controller connections and switching).

Regarding claim 7, Bandeira teaches all the limitations of claim 6, and further, Bandeira teaches wherein the attributes reflect a proximity to the network device (see for example, Figures 1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0020], [0038], lines 1-16, [0040], [0042], [0073], [0064], [0068], [0078], and [0088]).

Regarding claim 9, Bandeira teaches all the limitations of claim 6, and further, Bandeira teaches wherein the network device is a repeater (see for example, Figure 1, paragraphs [0020], [0021], [0038] through [0042], [0054]-[0055], [0061], and [0083], the repeaters).

Regarding claim 10, Bandeira teaches all the limitations of claim 6, and further, Bandeira teaches wherein the network device is a micro station (see for example, Figure 1-10, paragraphs [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0020], [0021], [0038] through [0042], [0054]-[0055], [0061], and [0083], the network station).

Regarding claim 11, Bandeira teaches all the limitations of claim 6, and further, Bandeira teaches wherein identifiers of the reverse channel are communicated along with the attributes (see for example, Figures 1, 6-10, paragraphs [0020], [0038], [0040], [0042], [0073], [0078], [0082], lines 1-9, [0084], lines 1-7, [0088]).

Regarding claim 12, Bandeira teaches all the limitations of claim 6, and further, Bandeira teaches wherein the attributes are communicated to the system manager via the receiver (see for example, Figures 1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0020], [0038], lines 1-16, [0040], [0042], [0073], [0064], [0068], [0078], and [0088]).

Regarding claims 13 and 19, Bandeira teaches all the limitations of claims 6, 15, and further, Bandeira teaches wherein the attributes are compared to a threshold at the system manager (see for example, Figures 1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0020], [0038], lines 1-16, [0040], [0042], [0073], [0064], [0068], [0078], and [0088]).

Regarding claims 14 and 20, Bandeira teaches all the limitations of claims 11, 15, and further, Bandeira teaches wherein the identifiers of the reverse channel are translated into mobile appliance identity information with information provided from a mobile switching center (see for example, Figures 1, 6-10, paragraphs [0020], [0038], [0040], [0042], [0073], [0078], [0082], lines 1-9, [0084], lines 1-7, [0088]).

Regarding claim 17, Bandeira teaches all the limitations of claims 15, and further, Bandeira teaches wherein the link is a wireless communication channel (see for example, Figures 1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0009], lines 1-10, [0017], lines 1-11, [0019], [0020]-[0021], [0038] through [0042], [0054], [0061], [0083], the communication system with repeater and the base station received signal).

Regarding claim 18, Bandeira teaches all the limitations of claims 15, and further, Bandeira teaches wherein the link is a wireline (see

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In case the space in any of the preceding boxes is not sufficient.

for example, Figures -1-10, paragraph [0005], lines 1-11, [0006], lines 1-7, [0006], lines 1-7, [0009], lines 1-10, the wired link).